

Reconsideration of the application is respectfully requested.

## **I. AMENDMENT**

### **A. In the Claims:**

Please cancel claims 37, 56, 58, 77, 79, 85-93 and 102. Please amend claims 38, 39, 42, 57, 59, 61, 62, 76, 81 and 94 as follows.

1-37 (Canceled)

38. (Currently Amended) ~~The method of claim 37~~ A method of forming a gelled organic-based fluid, comprising combining the following components to form said gelled organic-based fluid:

at least one organic base fluid, at least one carboxylic acid, at least one MSMA-based compound, and at least one first metal source compound, wherein said first metal source compound comprises a salt of carboxylic acid.

39. (Currently Amended) ~~The method of claim 37~~ A method of forming a gelled organic-based fluid, comprising combining the following components to form said gelled organic-based fluid:

at least one organic base fluid, at least one carboxylic acid, at least one MSMA-based compound, and at least one first metal source compound, wherein said combining comprises combining said organic base fluid and said MSMA-based compound with a solid reaction product of said carboxylic acid and said first metal source compound to form said gelled organic-based fluid.

40. (Previously Presented) The method of claim 42, wherein said multi-functional carboxylic acid comprises a dicarboxylic acid.

41. (Previously Presented) The method of claim 42, wherein said multi-functional carboxylic acid comprises a tricarboxylic acid.

42. (Currently Amended) ~~The method of claim 37~~ A method of forming a gelled organic-based fluid, comprising combining the following components to form said gelled organic-based fluid:

at least one organic base fluid, at least one carboxylic acid, at least one MSMA-based compound, and at least one first metal source compound, wherein said carboxylic acid comprises at least one multi-functional carboxylic acid.

43. (Previously Presented) The method of claim 39, wherein said metal of said first metal source has a valence of +3.

44. (Previously Presented) The method of claim 43, wherein said first metal source compound comprises at least one of carboxylic acid salt, metal oxide, metal halide, metal hydroxide, metal alkoxide, metal sulfate, and wherein said metal of said first metal source compound is aluminum, iron, or a mixture thereof.

45. (Canceled)

46. (Previously Presented) A method of forming a gelled organic-based fluid, comprising combining the following components to form said gelled organic-based fluid:

at least one organic base fluid, at least one carboxylic acid, and at least one first metal source compound;

wherein said carboxylic acid comprises at least one multi-functional carboxylic acid;

wherein said combining comprises combining said organic base fluid with a solid reaction product of said carboxylic acid and said first metal source compound to form said gelled organic-based fluid;

wherein said combining further comprises combining a second metal source compound with said organic base fluid and said solid reaction product; and

wherein said metal of said first metal source has a valence of +3; and wherein said metal of said second metal source has a valence of +3.

47. (Previously Presented) The method of claim 46, wherein said first metal source compound comprises salt of carboxylic acid; wherein said second metal source compound comprises at least one of metal oxide, metal halide, metal hydroxide, metal alkoxide, metal sulfate or a mixture thereof; and wherein said metal of said first and second metal source compounds is aluminum, iron, or a mixture thereof.

48. (Canceled)

49. (Previously Presented) A method of forming and using a gelled organic-based fluid, comprising:

combining at least one organic base fluid, at least one carboxylic acid, at least one first metal source compound, and at least one second metal source compound to form said gelled organic-based fluid; and

introducing said gelled organic-based fluid into a wellbore, pipeline interior or fluid processing facility;

wherein said first and second metal source compounds are different compounds; and

wherein said metal of said first metal source has a valence of +3; and wherein said metal of said second metal source has a valence of +3;

wherein said combining further comprises combining at least one MSMA-based compound with said organic base fluid, said first metal source and said second metal source compound to form said gelled organic-based fluid.

50. (Canceled)

51. (Previously Presented) A method of forming and using a gelled organic-based fluid, comprising:

combining at least one organic base fluid, at least one carboxylic acid, at least one first metal source compound, and at least one second metal source compound to form said gelled organic-based fluid; and

introducing said gelled organic-based fluid into a wellbore, pipeline interior or fluid processing facility;

wherein said first and second metal source compounds are different compounds;

wherein said metal of said first metal source has a valence of +3; and wherein said metal of said second metal source has a valence of +3; and

wherein said first metal source compound comprises salt of carboxylic acid; wherein said second metal source compound comprises at least one of metal oxide, metal hydroxide, metal halide, metal alkoxide, metal sulfate or a mixture thereof; and wherein said metal of said first and second metal source compounds is aluminum, iron, or a mixture thereof.

52. (Previously Presented) The method of claim 51, wherein said carboxylic acid comprises at least one fatty acid having from about 6 to about 24 carbon atoms; wherein said carboxylic acid salt comprises aluminum octoate, aluminum stearate, iron octoate, or a mixture thereof; and wherein said second metal source compound comprises at least one of aluminum oxide, iron hydroxide, aluminum hydroxide, aluminum isopropoxide, aluminum chloride, ferric ammonium sulfate, or a mixture thereof.

53. (Previously Presented) The method of claim 52, further comprising combining with said organic base fluid a breaker material.

54. (Canceled)

55. (Previously Presented) The method of claim 53, wherein said gelled organic-based fluid is introduced into a subterranean formation at a pressure above a fracturing pressure of said subterranean formation.

56. (Canceled)

57. (Currently Amended) ~~The method of claim 56~~ A method of forming a gelled organic-based fluid, comprising combining the following components to form said gelled organic-based fluid:

at least one organic base fluid;

at least one MSMA-based compound; and

at least one first metal source compound, wherein said first metal source compound comprises salt of carboxylic acid; and wherein said metal of said first metal source compound is aluminum, iron, or a mixture thereof.

58. (Canceled)

59. (Currently Amended) ~~The method of claim 58;~~ A method of forming a gelled organic-based fluid, comprising combining the following components to form said gelled organic-based fluid:

at least one organic base fluid;

at least one MSMA-based compound;

at least one first metal source compound; and

a carboxylic acid;

wherein said carboxylic acid comprises at least one multi-functional carboxylic acid.

60. (Previously Presented) The method of claim 59, wherein said carboxylic acid comprises citric acid.

61. (Currently Amended) ~~The method of claim 58,~~ A method of forming a gelled organic-based fluid, comprising combining the following components to form said gelled organic-based fluid:

at least one organic base fluid;

at least one MSMA-based compound;

at least one first metal source compound; and

a carboxylic acid;

wherein said carboxylic acid comprises benzoic acid.

62. (Currently Amended) ~~The method of claim 56,~~ A method of forming a gelled organic-based fluid, comprising combining the following components to form said gelled organic-based fluid:

at least one organic base fluid;

at least one MSMA-based compound; and

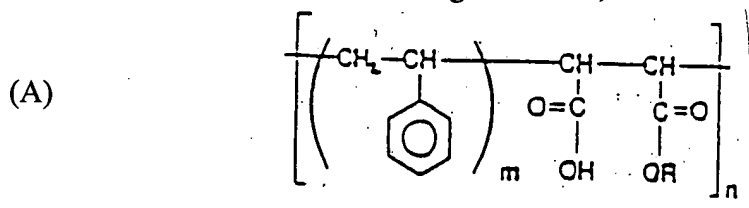
at least one first metal source compound;

wherein said combining comprises first combining said MSMA-based compound and said first metal source compound to form a reaction product; and then combining said reaction product with said organic base fluid to form said gelled organic-based fluid.

63. (Previously Presented) The method of claim 62, wherein said metal of said first metal source compound has a valence of +3.

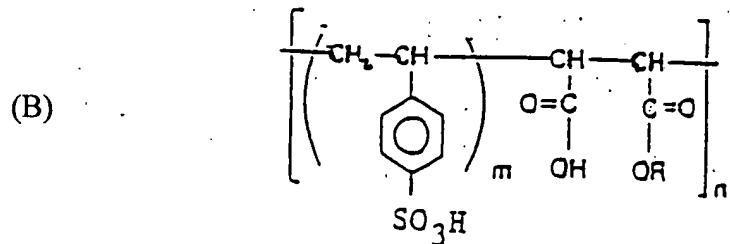
64. (Previously Presented) The method of claim 63, wherein said reaction product comprises the reaction product of at least one carboxylic acid, said at least one MSMA-based compound, and said at least one first metal source compound.

65. (Previously Presented) The method of claim 64, wherein said MSMA-based compound has at least one of the following structures, or a mixture thereof:



wherein m = from about 1 to about 3; n = from about 6 to about 8; and R is a branched or straight carbon chain that may be saturated or unsaturated, and which has from about 8 to about 20 carbon atoms; or





wherein  $m$  = from about 1 to about 3;  $n$  = from about 6 to about 8; and  $R$  is a branched or straight carbon chain that may be saturated or unsaturated, and which has from about 8 to about 20 carbon atoms.

66. (Previously Presented) The method of claim 65, wherein said first metal source compound comprises at least one of carboxylic acid salt, metal oxide, metal halide, metal hydroxide, metal alkoxide, metal sulfate, or mixture thereof; and wherein said metal of said first metal source compound is aluminum, iron, or a mixture thereof.

67. (Previously Presented) The method of claim 65, wherein said combining further comprises combining a second metal source compound with said organic base fluid, said at least one MSMA-based compound, and said at least one first metal source compound.

68. (Previously Presented) The method of claim 67, wherein said first metal source compound comprises salt of carboxylic acid; and wherein said second metal source compound comprises at least one of metal oxide, metal halide, metal hydroxide, metal alkoxide, metal sulfate or a mixture thereof; and wherein said metal of said first and second metal source compounds is aluminum, iron, or a mixture thereof.

69. (Previously Presented) The method of claim 64, wherein said carboxylic acid comprises at least one fatty acid having from about 6 to about 24 carbon atoms; and wherein said first metal source compound comprises aluminum octoate, aluminum stearate, iron octoate, aluminum 2,4-pentadione, iron 2,4-pentadione, aluminum oxide, iron hydroxide, aluminum hydroxide, aluminum isopropoxide, aluminum chloride, sodium hydroxide, ferric ammonium sulfate, or a mixture thereof.

70. (Previously Presented) The method of claim 68, wherein said carboxylic acid comprises at least one fatty acid having from about 6 to about 24 carbon atoms; wherein said carboxylic acid salt comprises aluminum octoate, aluminum stearate, iron octoate, or a mixture thereof; and wherein said second metal source compound comprises at least one of aluminum oxide, iron hydroxide, aluminum hydroxide, aluminum isopropoxide, aluminum chloride, ferric ammonium sulfate, or a mixture thereof.

71. (Previously Presented) The method of claim 57, wherein said combining further comprises combining at least one phosphate ester with said other components to form said gelled organic-based fluid.

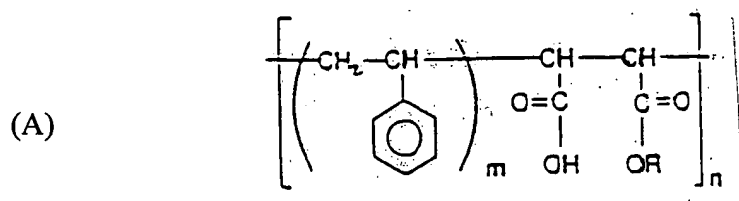
72. (Previously Presented) The method of claim 57, further comprising combining with said organic base fluid a breaker material.

73. (Previously Presented) The method of claim 57, further comprising introducing said gelled organic-based fluid into a wellbore, a pipeline interior, or a fluid processing facility.

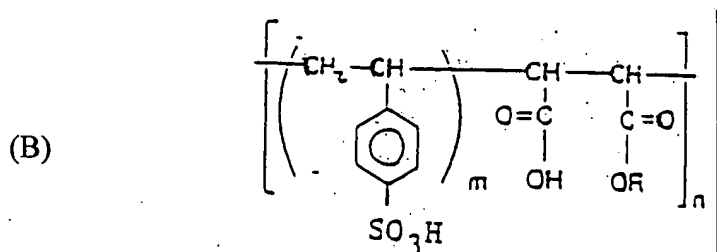
74. (Previously Presented) The method of claim 57, wherein said gelled organic-based fluid is introduced into a subterranean formation at a pressure above a fracturing pressure of said subterranean formation.

75. (Canceled).

76. (Currently Amended) ~~The gelled organic fluid of claim 79~~ A gelled organic fluid formed by combining an organic base fluid with a reaction product of at least one carboxylic acid, at least one metal source compound, and at least one MSMA-based compound, wherein said carboxylic acid comprises at least one fatty acid having from about 6 to about 24 carbon atoms; wherein said at least one metal source compound comprises aluminum octoate, aluminum stearate, iron octoate, aluminum 2,4-pentadione, iron 2,4-pentadione, aluminum oxide, iron hydroxide, aluminum hydroxide, aluminum isopropoxide, aluminum chloride, ferric ammonium sulfate, or a mixture thereof; and wherein said MSMA-based compound has at least one of the following structures, or a mixture thereof:



wherein m = from about 1 to about 3; n = from about 6 to about 8; and R is a branched or straight carbon chain that may be saturated or unsaturated, and which has from about 8 to about 20 carbon atoms; or



wherein m = from about 1 to about 3; n = from about 6 to about 8; and R is a branched or straight carbon chain that may be saturated or unsaturated, and which has from about 8 to about 20 carbon atoms.

77. (Canceled)

78. (Previously Presented) The gelled organic fluid of claim 76, wherein said reaction product comprises a solid reaction product having a particle size of from about 100 mesh to about 325 mesh.

79. (Canceled)

80. (Canceled).

81. (Currently Amended) ~~The gelled organic fluid of claim 77~~ A gelled organic fluid formed by combining an organic base fluid with a reaction product of at least one carboxylic acid, at least one metal source compound, and at least one MSMA-based compound; wherein said at least one metal source compound comprises a first and a second metal source compound, said first and second metal source compounds being different compounds; and wherein said carboxylic acid comprises at least one fatty acid having from about 6 to about 24 carbon atoms; wherein said first metal source compound comprises a carboxylic acid salt that is at least one of aluminum octoate, aluminum stearate, iron octoate, or a mixture thereof; and wherein said second metal source compound comprises at least one of aluminum oxide, iron hydroxide, aluminum

hydroxide, aluminum isopropoxide, aluminum chloride, ferric ammonium sulfate, or a mixture thereof.

82. (Previously Presented) The gelled organic fluid of claim 81, wherein said reaction product comprises a solid reaction product having a particle size of from about 100 mesh to about 325 mesh.

83. (Canceled)

84. (Canceled)

85-93. (Canceled)

94. (Currently Amended) ~~The method of claim 37~~ A method of forming a gelled organic-based fluid, comprising combining the following components to form said gelled organic-based fluid:

at least one organic base fluid, at least one carboxylic acid, at least one MSMA-based compound, and at least one first metal source compound; and

~~, further comprising~~ introducing said gelled organic-based fluid into a subterranean formation at a pressure above a fracturing pressure of said subterranean formation.

95. (Previously Presented) A method of forming and using a gelled organic-based fluid, comprising:

first combining an organic base fluid with a solid reaction product of a carboxylic acid and a first metal source compound;

then combining a second metal source compound with said combination of said organic base fluid and said solid reaction product to form said gelled organic-based fluid; and

introducing said gelled organic-based fluid into a wellbore, pipeline interior or fluid processing facility;

wherein said carboxylic acid comprises at least one multi-functional carboxylic acid.

96. (Previously Presented) A method of forming and using a gelled organic-based fluid, comprising:

first combining an organic base fluid with a solid reaction product of a carboxylic acid and a first metal source compound;

then combining a second metal source compound with said combination of said organic base fluid and said solid reaction product to form said gelled organic-based fluid; and

introducing said gelled organic-based fluid into a subterranean formation at a pressure above a fracturing pressure of said subterranean formation;

wherein said carboxylic acid comprises at least one multi-functional carboxylic acid.

97. (Previously Presented) The method of claim 46, further comprising introducing said gelled organic-based fluid into a wellbore, pipeline interior or fluid processing facility.

98. (Previously Presented) The method of claim 46, further comprising introducing said gelled organic-based fluid into a subterranean formation at a pressure above a fracturing pressure of said subterranean formation.

99. (Previously Presented) A method of forming and using a gelled organic-based fluid, comprising:

combining an organic base fluid with a solid reaction product to form said gelled organic-based fluid; and

introducing said gelled organic-based fluid into a wellbore, pipeline interior or fluid processing facility;

wherein said solid reaction product comprises a reaction product of at least one carboxylic acid, a first metal source compound, and a second metal source compound.

100. (Previously Presented) A method of forming a gelled organic-based fluid, comprising:

combining an organic base fluid with a solid reaction product to form said gelled organic-based fluid; and

introducing said gelled organic-based fluid into a subterranean formation at a pressure above a fracturing pressure of said subterranean formation;

wherein said solid reaction product comprises a reaction product of at least one carboxylic acid, a first metal source compound, and a second metal source compound.

101. (Previously Presented) The method of claim 49, wherein said gelled organic-based fluid is introduced into a subterranean formation at a pressure above a fracturing pressure of said subterranean formation.

102. (Canceled)



## **II. RESPONSE TO OFFICE ACTION**

In the amendment submitted concurrently herewith, claims 37, 56, 58, 77, 79, 85-93 and 102 have been canceled, and claims 38, 39, 42, 57, 59, 61, 62, 76, 81 and 94 have been amended to even more particularly point out and distinctly claim the claimed subject matter. Claims 38-44, 46-47, 49, 51-53, 55, 57, 59-74, 76, 78, 81-82 and 94-101 are now pending.

The amendments are submitted herewith to even more particularly point out and distinctly claim the claimed subject matter, and to place the application in condition for allowance.

### **A. The Rejection of Claims 37, 56, 58, 77, 79, 85-93 and 102**

In the latest Office Action, the Examiner rejected claims 37, 56, 58, 77, 79, 85-93 and 102. Applicants submit claim amendments herewith canceling the rejected claims in order to minimize further prosecution costs. The claim rejections are therefore now moot. Applicant reserves the right to pursue the subject matter of one or more of the canceled claims in other patent applications.

### **B. The Objection to Claims 38-44, 57, 59-74, 76, 78, 81, 82 and 94**

In the final Office Action, the Examiner objected to claims 38-44, 57, 59-74, 76, 78, 81, 82 and 94 as being dependent upon a rejected based claim, but indicated that these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. This has been done in the amendments submitted herewith. For example, claims 59 and 61 have been amended to recite the limitations of original base claim 56, and to recite "a carboxylic acid" as one of the combined components.

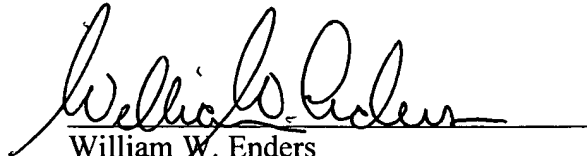
Applicants submit that the objected to claims are now in condition for allowance.

**C. Conclusion**

Applicants submit that the pending claims are in condition for allowance.  
Reconsideration of the application and claims is courteously solicited.

The examiner is invited to contact the undersigned at the phone number indicated below with any questions or comments, or to otherwise facilitate expeditious and compact prosecution of the application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "William W. Enders", written over a horizontal line.

William W. Enders  
Registration No. 41,735  
Attorney for Applicants

O'KEEFE, EGAN & PETERMAN  
1101 Capital of Texas Highway South  
Building C, Suite 200  
Austin, Texas 78746  
(512) 347-1611  
FAX: (512) 347-1615